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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,919	06/26/2001	Dragan Krupezevic	450117-03384	3840
22850	7590	11/14/2006	EXAMINER FILE, ERIN M	
C. IRVIN MCCLELLAND OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			ART UNIT 2611	PAPER NUMBER

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/892,919

Applicant(s)

KRUPEZEVIC ET AL.

Examiner

Erin M. File

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,3,6-10 and 12 is/are rejected.  
7) ☒ Claim(s) 2,4,5,11 and 13-15 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 26 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. The indicated allowability of claims 1, 3-15 is withdrawn in view of the newly discovered reference(s) to Appel, Carsello, Hiramatsu, and Thro. Rejections based on the newly cited reference(s) follow.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 6 recites the limitation "each modulation type" in line 3. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thro et al. (U.S. Patent No. 5,940,768) in view of Appel et al. (U.S. Patent No. 6,272,336).

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**Claim 1**, Thro discloses outputting at least one RF signal to at least one power detector (col. 6, lines 31-34), and a signal processing unit for processing the output of the power detector to generate the at least one flag (col. 6, lines 39-40, the signal processing outputs an indicator, which is the essential purpose of a flag, in response to the power detection threshold). Thro fails to disclose a n-port junction, n being an integer equal to or larger than three, being supplied with the modulated RF signal and the second RF signal and outputting at least one third RF signal, however, Appel discloses:

- a n-port junction, n being an integer equal to or larger than three (fig. 4, RFC, the RF coupler, receives two input signals and outputs two output signals, col. 7, lines 53)
- supplied with the modulated RF signal (fig. 4, modulated RF signal output from 402 is input to RF coupler) and the second RF signal (col. 7, lines 53, describes RF coupler as coupling two RF signals) and outputting at least one third RF signal to at least one power detector (fig. 4, RF coupler RFC outputs to power detector 426, col. 7, line 56),

Appel discloses the advantage of reduced power consumption in his port junction/power detector (abstract, line 19). Because of this advantage, it would have been obvious to one skilled in the art at the time of invention to incorporate the 3 port junction/power detection as disclosed by Appel into the invention of Thro.

**Claim 3**, Thro further discloses the signal processing unit comprises at least one comparison unit for comparing a processed output of the at least one power detector with at least one predetermined threshold (col. 6, lines 39-40).

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**Claim 9**, Thro discloses the use of software for implementing his device (col. 5, lines 45-59).

**Claim 10**, Thro discloses outputting at least one RF signal to at least one power detector (col. 6, lines 31-34), and a signal processing unit for processing the output of the power detector to generate the at least one flag (col. 6, lines 39-40, the signal processing outputs an indicator, which is the essential purpose of a flag, in response to the power detection threshold). Thro further discloses this RF power measurement is used for the identification of the modulation type (col. 6, lines 31-34). Thro fails to disclose a n-port junction, n being an integer equal to or larger than three, being supplied with the modulated RF signal and the second RF signal and outputting at least one third RF signal, however, Appel discloses:

- a n-port junction, n being an integer equal to or larger than three (fig. 4, RFC, the RF coupler, receives two input signals and outputs two output signals, col. 7, lines 53)
- supplied with the modulated RF signal (fig. 4, modulated RF signal output from 402 is input to RF coupler) and the second RF signal (col. 7, lines 53, describes RF coupler as coupling two RF signals) and outputting at least one third RF signal to at least one power detector (fig. 4, RF coupler RFC outputs to power detector 426, col. 7, line 56),

Appel discloses the advantage of reduced power consumption in his port junction/power detector (abstract, line 19). Because of this advantage, it would have been obvious to

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one skilled in the art at the time of invention to incorporate the 3 port junction/power detection as disclosed by Appel into the invention of Thro.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thro et al. (U.S. Patent No. 5,940,768) and Appel et al. (U.S. Patent No. 6,272,336) as applied to claim 1 above, and further in view of Carsello et al. (U.S. Patent No. 6,529,566).

**Claim 8**, neither Appel nor Hiramatsu discloses the signal processing unit is provided with an input for a-priori information on the symbol duration of the modulated RF signal, however, Carsello discloses input for a-priori information on the symbol duration (col. 4, lines 57-58). Because Carsello discloses the advantage of minimizing computation needed for the detection (col. 1, lines 40-41), it would be obvious to one skilled in the art at the time of invention to incorporate the use of known symbol length as disclosed by Carsello into the combined invention of Thro and Appel.

7. Claim 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Thro et al. (U.S. Patent No. 5,940,768) and Appel et al. (U.S. Patent No. 6,272,336) as applied to claim 10 above, and further in view of Hiramatsu et al. (U.S. Patent No. 6,522,869).

**Claim 12**, neither Deghan nor Appel discloses at least one comparison unit for comparing a processed output of the at least one power detector with at least one predetermined threshold. However, Hiramatsu further discloses the signal processing unit comprises at least one comparison unit for comparing a processed output of the at

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least one power detector with at least one predetermined threshold (col. 4, lines 34-38).

Because Hiramatsu discloses his invention has the advantage of suppressing the generation of unnecessary frequencies in the power detection process (abstract, lines 6-8), it would have been obvious to one skilled in the art at the time of invention to incorporate the power detection as disclosed by Hiramatsu into the combined invention of Thro and Appel.

### ***Claim Objections***

8. Claim 1 is objected to because of the following informalities: in line 8 *thitd* should be changed to *third*. Appropriate correction is required.

### ***Allowable Subject Matter***

9. Claims 2, 4, 5, 11, 13-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 6 and 7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin M. File whose telephone number is (571)272-6040.

The examiner can normally be reached on M-F 10:00-6:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Erin M. File

EMF

11/3/2006

  
**MOHAMMED GHAYOUR**  
**SUPERVISORY PATENT EXAMINER**